IN THE CLAIMS

Please amend the claims as follows:

1. (Cancelled).

2. (Previously Presented) A method for setting an optimum value of a write parameter for use in an optical recording apparatus for writing information on an optical recording medium by means of a radiation beam, the method comprising the steps of:

writing a series of test patterns on the recording medium, each pattern being written with a different value of a write power level (P) of the radiation beam;

reading the patterns so as to form corresponding read signal portions; and

deriving a value of a read parameter from each read signal portion,

characterized in that the method further comprises the steps of:

curve-fitting a function defining a relation between the read parameter and the write power level (P) to the values of the read parameter and of the write power level (P); and

setting an optimum value of the write parameter in dependence on a property of the curve-fitted function,

characterized in that in the curve-fitting step, a function

represented by a substantially straight line is curve-fitted to the values of the read parameter and of the write power level (P).

3. (Previously Presented) The method as claimed in claim 2, wherein the read parameter is a modulation (M) of the amplitude of a read signal derived from information recorded on the recording medium.

4. (Previously Presented) A method for setting an optimum value of a write parameter for use in an optical recording apparatus for writing information on an optical recording medium by means of a radiation beam, the method comprising the steps of:

writing a series of test patterns on the recording medium, each pattern being written with a different value of a write power level (P) of the radiation beam;

reading the patterns so as to form corresponding read signal portions;

deriving a value of a read parameter from each read signal portion;

curve-fitting a function defining a relation between the read parameter and the write power level (P) to the values of the read parameter and of the write power level (P); and

setting an optimum value of the write parameter in dependence on a property of the curve-fitted function,

characterized in that the read parameter is a modulation (M) of the amplitude of a read signal derived from information recorded on the recording medium,

in that the curve-fitted function is of the form:

$$P \cdot M = \alpha \cdot (P - \beta),$$

wherein $\alpha$ and $\beta$ have values resulting from the curve-fitting,

and in that the optimum value of the write parameter is set to be substantially equal to the value of $\beta$.

5. (Previously Presented) The method as claimed in claim 2, characterized in that the curve-fitting of the straight line in the curve-fitting step is carried out in a predetermined fit range of write power levels.

6. (Previously Presented) The method as claimed in claim 5, characterized in that the predetermined fit range of write power levels is between $P_{ind}$ times $\omega_1$ and $P_{ind}$ times $\omega_2$, where $P_{ind}$ is a value read from an area on the recording medium comprising control information indicative of the recording process, and where $\omega_1$ and $\omega_2$ are predetermined values.

7. (Previously Presented) The method as claimed in claim 5, characterized in that the method further comprises a step of:

curve-fitting a provisional straight line,

and in that the predetermined fit range of write power levels is between $P_{fit}$ times $\omega_1$ and $P_{fit}$ times $\omega_2$, where $P_{fit}$ is a value derived from the provisional curve-fitted straight line, and where $\omega_1$ and $\omega_2$ are predetermined values.

8. (Previously Presented) The method as claimed in claim 6, characterized in that $\omega_1$ has a value substantially equal to 0.85 and $\omega_2$ has a value substantially equal to 1.15.

9. (Previously Presented) The method as claimed in claim 5, characterized in that the method further comprises a step of:

curve-fitting at least a second straight line in at least a second predetermined fit range of write power levels,

and in that in the optimum value setting step, the optimum value of the write parameter is set in dependence on a property of each of the curve-fitted straight lines.

10. (Currently Amended) A method for setting an optimum value ($P_{opt}$) of a write power level (P), of a radiation beam, said method being intended for use in an optical recording apparatus for writing information on an optical recording medium ~~(1)~~ by the radiation beam (5) having the write power level (P), said method comprising the steps of:

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setting an optimum value of a write parameter using ~~a~~ the method as claimed in any one of the claims 4 to 9 ~~for setting an optimum value of a write parameter, characterized in that~~; and

setting the optimum value ($P_{opt}$) of the write power level (P) ~~is set~~ to be equal to the optimum value of the write parameter times a multiplication constant ($\kappa$).

11. (Previously Presented) The method as claimed in claim 10, characterized in that the multiplication constant ($\kappa$) is read from an area on the recording medium containing control information indicative of a recording process whereby information can be recorded on said recording medium.

12. (Cancelled).

13. (Previously Presented) An optical recording apparatus for recording information on an optical recording medium, said optical recording apparatus comprising:

a radiation source for emitting a radiation beam having a controllable value of a write power level (P) for recording information on the recording medium;

a control unit for recording a series of test patterns, each pattern being recorded with a different value of the write power level;

a read unit for reading the patterns and for forming corresponding read signal portions; and

first means for deriving a value of a read parameter from each read signal portion,

characterized in that the optical recording apparatus further comprises:

second means for curve-fitting a function defining a relation between the read parameter and the write power level (P) to the values of the read parameter and of the write power level (P); and

third means for setting an optimum value of a write parameter in dependence on a property of the curve-fitted function, characterized in that the second means curve-fits a function represented by a substantially straight line to the values of the read parameter and of the write power level (P).

14. (Previously Presented) The optical recording apparatus as claimed in claim 13, characterized in that the read parameter derived by the first means is a modulation (M) of the amplitude of a read signal derived from information recorded on the recording medium, and in that the curve-fitted function represented by a substantially straight line is of the form $P \cdot M = \alpha \cdot (P-\beta)$, wherein $\alpha$ and $\beta$ have values resulting from the curve-fitting.

15. (Previously Presented) The optical recording apparatus as claimed in claim 14, characterized in that the third means sets the optimum value of the write parameter so as to be substantially equal to the value of $\beta$.

16. (Previously Presented) The optical recording apparatus as claimed in claim 13, characterized in that the second means for curve-fitting a function sets a predetermined fit range of power levels.

17. (Previously Presented) The optical recording apparatus as claimed in claim 16, wherein the read unit reads a value ($P_{ind}$) indicative of the fit range from an area on the recording medium comprising control information indicative of the recording process, characterized in that the second means sets the predetermined fit range of power levels between $P_{ind}$ times $\omega_1$ and $P_{ind}$ times $\omega_2$, where $\omega_1$ and $\omega_2$ are predetermined values.

18. (Previously Presented) The optical recording apparatus as claimed in claim 16, characterized in that the optical recording apparatus further comprises fourth means for curve-fitting a provisional straight line to the values of the read parameter and of the write power level (P), and fifth means for setting a value $P_{fit}$ in dependence on a property of the curve-fitted provisional

straight line, and in that the second means sets the predetermined fit range of power levels between $P_{fit}$ times $\omega_1$ and $P_{fit}$ times $\omega_2$, where $\omega_1$ and $\omega_2$ are predetermined values.

19. (Previously Presented) The optical recording apparatus as claimed in claim 16, characterized in that the optical recording apparatus further comprises fourth means for curve-fitting a second straight line in a second predetermined fit range of power levels, and in that the third means sets an optimum value of the write parameter in dependence on a property of each of the curve-fitted straight lines.

20. (Previously Presented) The optical recording apparatus as claimed in claim 14, characterized in that the optical recording apparatus further comprises setting means for setting an optimum value ($P_{opt}$) of the write power level (P) in dependence on the optimum value of the write parameter.

21. (Previously Presented) The optical recording apparatus as claimed in claim 20, wherein the read unit reads a value of a multiplication constant ($\kappa$) from an area on the recording medium containing control information indicative of a recording process whereby information can be recorded on said recording medium, characterized in that the setting means sets an optimum value ($P_{opt}$)

of the write power level (P) by multiplying the optimum value of a write parameter by the multiplication constant (κ).

22. (Currently Amended) An optical recording medium for having information recorded thereon by ~~irradiating the optical recording medium with a radiation beam~~an optical recording apparatus as claimed in claim 21, the recording medium comprising an area containing control information indicative of a recording process whereby information can be recorded on said recording medium, the control information comprising values of recording parameters for the recording process,
characterized in that the control information comprises a value of a multiplication constant (κ) ~~for use in the method as claimed in claim 5~~.

23. (Currently Amended) An optical recording medium for having information recorded thereon by ~~irradiating the optical recording medium with a radiation beam~~an optical recording apparatus as claimed in claim 17, the recording medium comprising an area containing control information indicative of a recording process whereby information can be recorded on said recording medium, the control information comprising values of recording parameters for the recording process,

characterized in that the control information comprises a value indicative of the fit range ($P_{ind}$) ~~for use in the method as claimed in claim 6~~.